

Consultant's Update

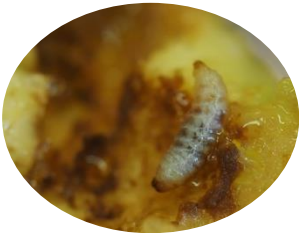
Ridge Quest



An adult plum curculio.

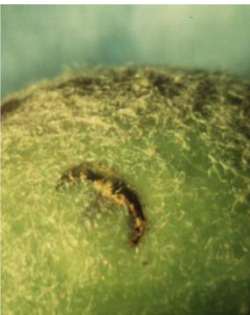
Insect of the Week

Plum Curculio



----- KELSEY BENTHALL

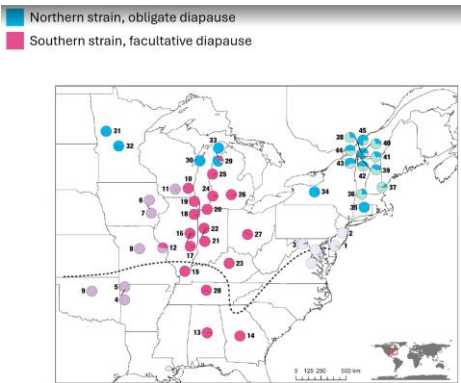
Plum curculio is a key pest of apples and peaches. They are also found feeding on plums, pears, blueberries, grapes, persimmons, cherries, and apricots. Adult beetles are dark brown with snouts approximately 1/3 the length of their body. One key identifier is that their two hardened wings have four bumps and grayish-white patches.



Adults overwinter in wooded edges and move into orchards around bloom. Females will begin egg laying at 275 DD₅₀ and cut distinctive crescent-shaped scars where eggs are then placed inside. Eggs hatch within one to two weeks and tunnel inside developing fruit, often causing premature drop. If unmanaged, plum curculio can damage a large share of the crop. Effective management centers on monitoring adult activity with special attention to orchard borders where overwintering adults first enter. Pheromone-baited traps should be placed in outer rows of orchards. Outer rows should also be monitored for feeding and egg-laying damage from bloom until three weeks following petal fall. If monitoring dictates chemical control, then insecticide applications are usually recommended at petal fall, one week post-petal fall, and two weeks post-petal fall in apples.

Studies have shown that chemical management is no longer effective after 340 DD₅₀ post-petal fall in apples. For peaches, applications are recommended for petal fall, shuck split, and 10-14 days following the second application. Cultural practices, such as removing wild hosts and maintaining clean edges, help reduce migration from surrounding woods.

Two genetically distinct strains occur in the United States: a univoltine northern strain, found from the Great Lakes through New England, which completes only one generation per year; and a multivoltine southern strain, common from roughly New Jersey and West Virginia southward, which produces two to three generations annually. However, recent studies at MSU with Heather Leach are showing the southern strain is expanding northward into Michigan, meaning we may begin to see late-season damage from plum curculio.



(Map by Heather Leach, MSU).

From The Orchard

The latest local news

----- CHANDRA BUNKER

I want to talk about the importance of knowing what insects are present in your orchard and what kind of damage they are causing. Many growers are not fully up to date on some of the insect pressures they have. I often hear, “I don’t have any problems with that,” but when I look at fruit at harvest, I can clearly see damage from those very pests. One insect I want to focus on is the oblique banded leafroller (OBLR). About 20 years ago, this was a critical pest because it had developed resistance to available controls. New chemistries were introduced and have been used successfully for many years. However, we are now seeing signs that resistance is developing again, largely due to repeated use of the same materials. In Michigan, I am observing that chemical controls are becoming less effective over time. We are also seeing larvae appear earlier during bloom from the overwintering generation. Many growers do not recognize this shift, which leads to poorly timed sprays. As a result, the summer generation becomes larger and harder to manage. Another change is that emergence in the spring is more prolonged. This year, I observed the spring generation lasting 4 to 6 weeks, from bloom until just a couple weeks ago in some blocks. In the past, a couple of well-timed cover sprays during each generation were usually sufficient. I am also seeing a significant amount of clustered fruit this season, which creates an ideal environment for larvae to feed and hide during the summer generation, increasing the risk of fruit damage.

To review the lifecycle: OBLR emerges as larvae in the spring, pupates, and then lays eggs. Those eggs hatch within a few weeks, and the larvae feed on leaves and fruit. They then pupate again, leading to the next generation. The final generation produces larvae that not only prepare to overwinter but can also feed on fruit late in the season. This late-season feeding is especially concerning because it often occurs after sprayers have been put away. Many growers assume their orchards are clean by September, but these larvae can still cause significant damage prior to harvest. In warmer summers, this risk increases as development continues later into the fall. The key takeaway is this: know what is in your orchard. Proper identification and early management, especially in the spring, are critical. Waiting until the summer generation can be too late to prevent fruit damage. Another control method that remains effective for OBLR is mating disruption. It may be worth considering as part of an integrated management strategy.

A. Eaton, R. Maccini. 2016. Plum Curculio Pest Fact Sheet 5. University of New Hampshire Cooperative Extension.
W. H. Reissig, J. P. Nyrop, R. Straub. 1998. Oviposition Model for Timing Insecticide Sprays Against Plum Curculio (Coleoptera: Curculionidae) in New York State, *Environmental Entomology*.
H. Leach. When Pest Management Becomes Alphabet Soup. June 3rd. 2026 IPM Tree Fruit Meeting – West Central and Grand Rapids.